



Principal Turnover in Illinois Public Schools, 2001-2008

Karen J. DeAngelis and Bradford R. White

Executive Summary

This report is the second in an IERC series on public school principals in Illinois. In the first report, Brown and White (2010) described in detail the characteristics and distribution of Illinois principals from 2001 to 2008. This study focuses on principals' movements during the same period, thereby providing recent information on principal retention and turnover during a time marked by increasing school accountability and public scrutiny of principal effectiveness. A previous study by researchers at the RAND Corporation that focused on the 1987 to 2001 period enables us to compare our results to an earlier period when the characteristics of Illinois principals and the policy atmosphere in which they operated were very different.

For our analyses, we focus on principal- and school-level data from state administrative records and other state and national sources for the eight years from 2001 to 2008. By piecing together annual data files across those years, we are able to track each Illinois principal from one year to the next throughout the period. We use descriptive, inferential, and multivariate analyses to determine the extent of principals' movements, as well as the personal and school-based factors that are associated with those movements. We consider five possible outcomes for each principal in each year: stayed in the same school as principal, remained a principal but moved to another school within the same district, remained a principal but moved to another school in a different district, changed to a non-principal position within the Illinois public schools (IPS), or left the system altogether. Our key findings are as follows:

Principal turnover has increased. Turnover rates for all principals and for first-time principals were significantly

higher during the period of this study (2001–2008) than they were during the earlier study conducted by Ringel, Gates, Chung, Brown, and Ghosh-Dastidar (2004). On average, 79.1% of all principals stayed in the same school from one year to the next between 2001 and 2008, compared to approximately 86% of all principals between 1987 and 2001 (Ringel et al., 2004). Of those who left their schools, an average of about 40% (8.4% of principals overall) left IPS altogether, again significantly higher than the roughly 20% reported during the earlier period. With regard to first-time principals, we find that just over 28% were still leading their original school after six years, compared to 38% in Ringel et al.'s study. Moreover, about a quarter (24.4%) of first-time principals had left IPS altogether after six years versus 18% in the earlier study.

Chicago principals exhibited both greater retention and greater attrition than principals in other locales.

While seemingly contradictory, the average percentages of Chicago principals—both first-time and overall—who remained in their schools from year to year and who left IPS altogether were greater than those of principals in other locales. However, the percentages of Chicago principals who moved across schools and changed to non-principal positions were lower than in other locales. Nearly all Chicago principals who moved did so within district, which suggests that they had either less desire or less opportunity than principals in other locales in the state to secure principal positions in other districts. These differences in actual retention and turnover rates during the period stem from differences in the characteristics of principals and schools in Chicago compared to other locales. Once those differences in characteristics were controlled in our multivariate analysis, Chicago principals

were actually less likely to leave IPS and similarly likely to change to non-principal positions as suburban principals in the state.

The vast majority of principals who left IPS did not return. Of the 8.4% of all principals who left IPS during this study, 89.3% had not returned by 2008. Not surprisingly, the return rates differed substantially by age, with younger principals (i.e., those aged 40 or younger) showing a significantly higher return rate (30.4%) than older principals (15.1% and 5.8% of those aged 41-54 and 55 or older, respectively). Across all age groups, the majority of those who came back assumed non-principal positions. Only a very small percentage returned to principal positions in their former district or school.

Few Illinois principals left to pursue work outside of education. We have some, albeit limited, information regarding principals' reasons for leaving IPS from the 2003 to 2007 cohorts. About two-thirds (65.6%) of all leavers cited retirement as the reason for leaving, although there was substantial variation by age with only 1.1% of those aged 40 or younger citing retirement compared to 64.6% and 72.9% of those in the 41-54 and 55 and older age categories, respectively. Young principals were substantially more likely than older principals to cite a move to an education position in a non-public or out-of-state school, domestic/child care responsibilities, or involuntary removal from their position as their reasons for leaving. Only a very small percentage of principals (1.2% overall) indicated leaving IPS to pursue work in some non-educational vocation.

Illinois principals who moved across districts tended to move to more advantaged schools, but those who moved within district did not. Illinois principals who changed schools within district experienced little difference, on average, in the characteristics of the students and teachers in their new schools compared to the ones they left. Principals who transitioned across district lines, in contrast, tended to move to schools with significantly lower percentages of low-income students and higher average achievement levels. There were two exceptions to these trends: principals from non-Chicago urban areas who moved within district tended to move to schools with substantially lower percentages of low-income students; and principals from rural schools who moved across districts tended to go to schools with higher percentages of minority and low-income students.

The majority of principals who changed to non-principal positions transitioned to other administrative jobs. Over 72% of Illinois principals who changed positions moved to a non-principal administrative job, and an additional 11% moved to assistant principal positions. Over 10% reverted back to teaching in IPS. Of the principals who transitioned from their principal position to an assistant principal position, roughly half (51%) had served in that capacity for one or more years prior to becoming a principal.

Accountability pressures appear to have had a negative impact on principal stability in Illinois between 2001 and 2008. In our multivariate analysis, we find that student performance as measured by standardized achievement scores in the school and the school's AYP status were significantly related to principal turnover. Specifically, principals in schools that made AYP had significantly lower odds (0.75) of moving across schools within their district or leaving (0.82) the Illinois public schools than principals in schools that failed to make AYP, controlling for the overall achievement level of the school. Similarly, controlling for AYP status, principals in schools with higher overall achievement scores were significantly less likely to move across district, change to non-principal positions, and leave altogether than principals in lower performing schools. In addition, principals of schools with higher percentages of non-highly qualified teachers, as defined by NCLB, had significantly greater odds of moving to new schools out of district and leaving IPS altogether than principals of schools with lower percentages of non-highly qualified teachers. Other indicators of teachers' qualifications, including the mean ACT composite score of teachers and the percentages of teachers in the schools with no more than three years of experience, were not significantly related to principal turnover during this study period.

Implications

Without information regarding the effectiveness of principals, we are not able in this study to assess whether the increase in principal instability in recent years presents cause for concern. While the literature suggests that principal turnover can have a detrimental effect on student achievement at the school level (Branch, Hanushek, & Rivkin, 2009; Wheeler, 2006), presumably so too can an ineffective principal who remains in a school for a long time. Either way, our results suggest that accountability pressures have contributed to the greater instability. Moreover, higher principal attrition from the system—and the fact that only a small fraction of leavers return—represent an increased loss of principal resources from the state in recent years. Given that accountability pressures are likely to persist, district administrators in Illinois need to be prepared to continue to recruit increasing numbers of new principals.

Viewing Chicago in the context of the rest of the state is helpful and shows that principal turnover is a statewide issue. Principals in Chicago exhibited greater same-school retention and lower mobility rates—especially across districts—than principals elsewhere in the state. And although the rates of principal attrition from the system were higher in Chicago than in other locales, after controlling for differences in the characteristics of schools and principals, Chicago principals were actually less likely to leave IPS than suburban school principals. Thus, a major advantage of this study lies in our ability to put the Chicago data into the context of the state as a whole, and to show that principal turnover is an issue that affects schools statewide.

Between-district principal movements appear to be dictated by principals' preferences to work in more advantaged schools, while their within-district movements may be driven more by district decisions. We find that the impact on principals of moving in Illinois largely depends on whether the principal moved within or outside of his or her original district. Principals who changed schools within district tended to move to schools with quite similar student and teacher characteristics, while those who transitioned across district lines tended to move to schools with significantly lower percentages of low-income students and higher average achievement levels. Since other research has found that principals

prefer more advantaged schools and tend to move in line with those preferences (Loeb et al., 2010), our results suggest that within-district principal mobility in Illinois may be determined more by districts' needs and decisions with regard to principal placement than by principals' own preferences. The shuffling of principals within districts has no impact on a district's overall demand for school leaders, but it does have an impact on principal tenure within schools. District administrators need to consider both the potential costs and benefits of moving principals across schools.

While the retirement of older principals might be difficult to address, further research can help inform changes to policy, practice, and preparation that could reduce turnover among the state's increasing numbers of younger principals. Aside from changing retirement policies to create an incentive for principals to stay in the profession longer, it is not clear that much can be done to retain older principals who choose to retire. However, we found that the vast majority of younger principals leave for reasons other than retirement, and the small proportion who eventually return to IPS tend to do so to non-principal positions. Similarly, nearly three out of ten principals who changed positions between 2001 and 2008 moved to an assistant principal, teaching, or some other, non-administrative position. These findings suggest that some Illinois principals may not be or perceive themselves to be adequately prepared for or well-suited for the role. Given the increasing reliance on younger principals in Illinois over the past several years (Brown & White, 2010), further efforts are needed to understand better the reasons for this premature turnover of principals and to determine what might be done in the preparation, selection, and/or induction process to mitigate it.

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Introduction

Research shows that school principals have a significant, though largely indirect, impact on school quality and student outcomes (see, e.g., Hallinger & Heck, 1996; Louis, Leithwood, Wahlstrom, & Anderson, 2010). In addition, a principal's tenure in his or her school is positively associated with student achievement gains (Branch et al., 2009; Wheeler, 2006); and Bryk, Sebring, Allensworth, Luppescu, and Easton (2010) identified school leadership as one of five essential supports for school improvement. As recognition of the importance of principals has grown over the past several years, so too has researchers' interest in the labor market for school principals. In this report, we examine principal retention and turnover in Illinois public schools from 2001 to 2008.

This study builds upon earlier work by Ringel et al. (2004), which examined Illinois principal retention and turnover from 1987 to 2001. Since that time, school-based accountability policies like the No Child Left Behind Act of 2001 (NCLB) have intensified, and programs such as Race to the Top and the School Improvement Grant have focused considerable public and research attention on principal effectiveness. In a recent Illinois Education Research Council (IERC) study of the characteristics and distribution of Illinois principals, Brown and White (2010) found that the characteristics of principals changed considerably over this same timeframe. Because the principals and the policy atmosphere in which they operate have changed so drastically over the past several years, we felt it necessary to extend the previous research and examine the impact of these changes.

Our current study utilizes state administrative files containing population data for public school employees in Illinois. We focus solely on individuals who served as a principal of an Illinois public school for at least one year from 2000-01 to 2007-08, and use descriptive and multivariate analyses to explore how principals' job movements are related to personal and school characteristics. The report begins with an examination of year-to-year and overall average principal turnover rates. Next, our focus turns to first-time principals, as we track two cohorts of new principals over time, looking both at new Illinois principals overall and new principals within and outside of Chicago. We then examine the extent to which the principals' movements differ based on both their own characteristics and the characteristics of the schools in which they worked. We follow this up with more in-depth investigations of principals who left the Illinois public school system (IPS), those who moved to other schools, and those who switched to non-principal positions. Unlike other studies in this area, we have access to some limited information regarding principals' reasons for leaving their positions, which we are able to use to inform our analysis of these turnover patterns. We conclude our investigation with a multivariate analysis to determine the unique impact of personal and school-based factors on principal turnover in Illinois. Finally, we end the report with a summary of our findings and notes on their implications for Illinois policy and practice.

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Methodology

Data

We employ data from a number of sources in this study. Information about the principals themselves, such as their personal characteristics, years of experience both within and outside of the Illinois public schools, positions held, employment type, highest degree level, and undergraduate college, was obtained from annual Teacher Service Record (TSR) and Teacher Certification Information System (TCIS) files. Those data files, which contain population data for public school teachers and administrators in the state, are compiled and maintained by the Illinois State Board of Education (ISBE) and were made available to the IERC through a data-sharing agreement. The identity of each principal's undergraduate institution was matched to a database containing *Barron's Profiles of American Colleges* (2003) rankings to determine the competitiveness of the institution. Information about the schools in which the principals worked, including location in the state, locale type, school level, school size, test scores, and characteristics of the students served (i.e., percent minority students, percent low-income students as determined by their eligibility for the federal free and reduced-price lunch program), was obtained from annual Illinois school report card files and the National Center for Education Statistics' (NCES) Common Core of Data files. These school-level files are publicly available through the websites of ISBE and NCES, respectively.

For our analyses, we focus on eight years—2000-01 (2001) to 2007-08 (2008)—of principal- and school-level data from these sources, although TSR and TCIS data from as far back as 1971 were used to construct the experience variables. By piecing together the annual data files across the eight years, we were able to construct a longitudinal file that allows us to track each IPS principal

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from one year to the next throughout the study period. Charter school principals are excluded from this analysis due to inadequate and uneven participation by charter schools in the TSR data collection and reporting. In addition, data limitations prevent us from tracking IPS principals into non-public Illinois schools or into schools out of state, although we do have some information about the prevalence of those moves (described in the Findings section below). For the small percentage of individuals each year who served as principal in multiple schools at the same time, we selected one of the schools to track each principal in order to avoid double counting individuals in our analyses.¹ In all, our dataset contains information for 7,075 unique individuals who served as a principal of an Illinois public school for at least one year during the 2001 to 2008 period.²

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¹ For principals with prior experience, we looked at where the principal had served in the previous year(s) and selected that school. For first-year principals, we looked at where the principal served in the subsequent year, if applicable, and selected that school. In all cases, we chose the school to err on the side of greater principal stability.

² In an earlier report in this IERC series on school principals, Brown and White (2010) presented in detail Illinois principals' personal characteristics, career paths, and their distribution across schools from 2001 to 2008. That report utilized schools as the level of analysis, whereas we utilize individual principals. Because a small number of principals serve in multiple schools at the same time and we count each principal only once for analytic purposes, the number of principals on which the results in this report is based is slightly lower than that used in Brown and White (2010).

Methods

We use descriptive, inferential, and multivariate analyses to determine the extent of principals' movements, as well as the personal and school-based factors that are associated with those movements. For the population of Illinois principals in each year, we identify each principal based on their status in the subsequent year as follows:

- **Stayers** who stayed in the same school as principal;
- **Movers Within District** who remained a principal but moved to another school within the same district;
- **Movers Out of District** who remained a principal but moved to another school in a different district;
- **Changers** who changed to a non-principal position within IPS; or
- **Leavers** who left the IPS system altogether.

We track each individual from the year she or he assumed a principal position until 2008, resulting in up to seven years of information about each principal's career path.

We track each individual from the year she or he assumed a principal position (as early as 2001 for those who were principals during the first year of our study period) until 2008, resulting in up to seven years of information about each principal's career path.

In addition, we examine the extent to which the principals' movements differ based on both their own characteristics and the characteristics of the schools in which they worked. We do this in two ways. First, we compare the average turnover rates of the 2001 to 2007 principal cohorts by each characteristic separately (e.g., female versus male principals, younger versus older principals). The term "cohort" in this study refers to all individuals serving as a principal of an Illinois public school in a given year, unless otherwise indicated. Second, we use a multivariate regression technique to isolate the unique contribution of each of the various personal and school characteristics on the five possible outcomes

(i.e., stayed in the same school, remained a principal but moved to another school within the same district, remained a principal but moved to another school in a different district, changed to a non-principal position within IPS, or left the IPS altogether). Since our data end before we are able to observe the movements of some principals (i.e., they transition for the first time in 2008 or later), we use discrete-time competing risks models to obtain accurate estimates of effects even with these "right-censored" observations (Singer & Willett, 2003). The dataset used to estimate these models includes one observation for each year that a principal was "at risk" of making a transition. Thus, principals who served for multiple years during this study contribute multiple observations to the dataset. The principal's type of transition (or lack of transition) in each year serves as the dependent variable in the model. Because the dependent variable is categorical and has more than two outcomes, a multinomial logit model is estimated.

The personal characteristics that we examine are mostly self-explanatory, with the possible exception of the experience variables. We consider both years of experience as a principal overall (i.e., in any school) and years of experience as a principal within a particular school because there is limited evidence that the latter type of experience may be more important with regard to student outcomes (Branch et al., 2009; Wheeler, 2006). We use the competitiveness ranking of a principal's undergraduate college as an indicator of his or her academic qualifications, although, as Brown and White (2010) point out, the evidence base linking measurable characteristics of principals to their effectiveness is limited. In fact, Clark, Martorell, and Rockoff's (2009) study suggests that difficult-to-measure attributes, like leadership skills and motivation, are more important indicators of principal quality than college ranking.

In terms of school characteristics, we use two categories for school level (elementary/middle and high school) to enable comparisons between Chicago Public Schools, which follow a K-8 model whereby non-high schools are classified as elementary schools, and schools in other parts of the state. As in past IERC reports, we examine the Chicago public school district (Chicago) separately from other urban districts due to the fact that Chicago schools alone constitute more than half of all urban schools in the state. For some analyses, our

measures for percent minority students and percent low-income students are based on quartiles defined for all schools in each year; we further disaggregate the top quartile to delineate schools that fall into the highest 10% of each measure, thereby creating five minority and poverty categories: low (bottom quartile), middle-low (25th to 49th percentile), middle-high (50th to 74th percentile), high (75th to 89th percentile), and highest 10%. Low minority/low poverty schools are those that fall into the low (bottom) quartile for both the minority and poverty categories. High minority/high poverty schools are those that fall into the top quartile (high and highest categories combined) on those measures. A school's Annual Yearly Progress (AYP) status indicates whether it achieved the gains in student performance required by NCLB (for information regarding how AYP is calculated, see Illinois State Board of Education, 2010). AYP results are reported for schools beginning in 2003 so principals from the 2001 and 2002 cohorts are not included in this school-based category. Lastly, for some analyses we use mean achievement scores, which are standardized scores (mean=0, standard deviation=1)

We examine the extent to which the principals' movements differ based on both their own characteristics and the characteristics of the schools in which they worked.

based on each school's standing on the Illinois Standards Achievement Test (ISAT) or Prairie State Achievement Examination (PSAE) relative to all other schools at that level (i.e., elementary/middle or high school) in each year. This allows us to compare the achievement results of the initial and subsequent schools for principals who changed schools (and, in some cases, school levels) during the period.

Because population data are used in this study, tests of statistical significance are largely unnecessary. All differences in retention and turnover rates across principal cohorts reflect actual differences during the period under examination.

Findings

In the first report in this IERC series on Illinois principals, Brown and White (2010) provided a detailed account of principals' characteristics and distribution during the timeframe of this study. To avoid repetition, we direct readers to that report for descriptive information about the annual population of roughly 3,600 individuals who served as principals in the Illinois public schools during each academic year from 2001 to 2008. Here, we present detailed information on Illinois principals' retention and turnover rates.

Overall Principal Turnover

Figure 1 shows the year-to-year and overall average turnover rates of Illinois principals during the study period. The year-to-year rates reflect the transitions of principals from that year to the next (e.g., the 2001 rates indicate principals' positions in 2002 compared to 2001), thus annual turnover rates could be calculated for the 2001 through 2007 cohorts with our dataset.

On average across all years, 79.1% of principals stayed in the same school from one year to the next. This retention rate is significantly lower than the 86% rate reported for the 1987 to 2001 period, indicating a decline in principal stability in recent years in Illinois.

On average across all years, 79.1% of principals stayed in the same school from one year to the next, 2.8% moved to another school within the same district, 2.8% moved to a school in a different district, 6.8% changed to a position other than principal, and 8.4% left IPS altogether. This 79.1% retention rate average from 2001-2008 is significantly lower than the 86% rate reported by Ringel et al. (2004) for the 1987 to 2001 period, indicating a decline in principal stability in recent years in Illinois. Among principals who left their schools, an average of about 40% left IPS altogether, 27% moved to

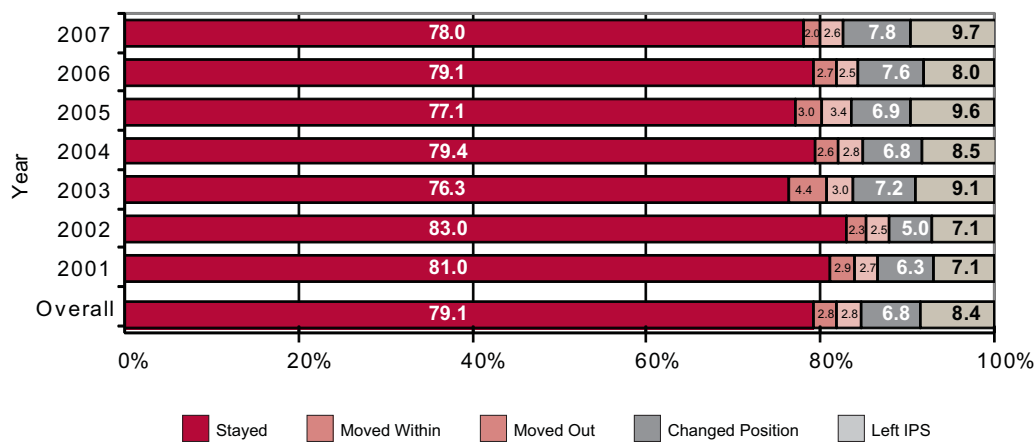
another school (evenly divided between schools within and outside of their current district), and about a third (33%) changed to non-principal positions within IPS. Looking at these figures, the 40% of non-stayers who left the system altogether is also significantly higher than the 20% reported by Ringel et al. (2004), and again represents decreasing stability in the state's principal workforce.

Examining the year-to-year rates in Figure 1, we see somewhat lower retention rates and higher leave rates (both from IPS and from principal positions) beginning in 2003 compared to 2001 and 2002, which may reflect the increasing emphasis placed on accountability during the course of this study period. This result is consistent with that of Cullen and Mazzeo (2007), who reported somewhat higher turnover rates in the second half of their 1994-2006 study of Texas principals.

First-time Chicago principals were more likely to have remained in the same school after six years than first-time Illinois principals overall, however a much greater percentage had left the system altogether than was found in the earlier cohorts.

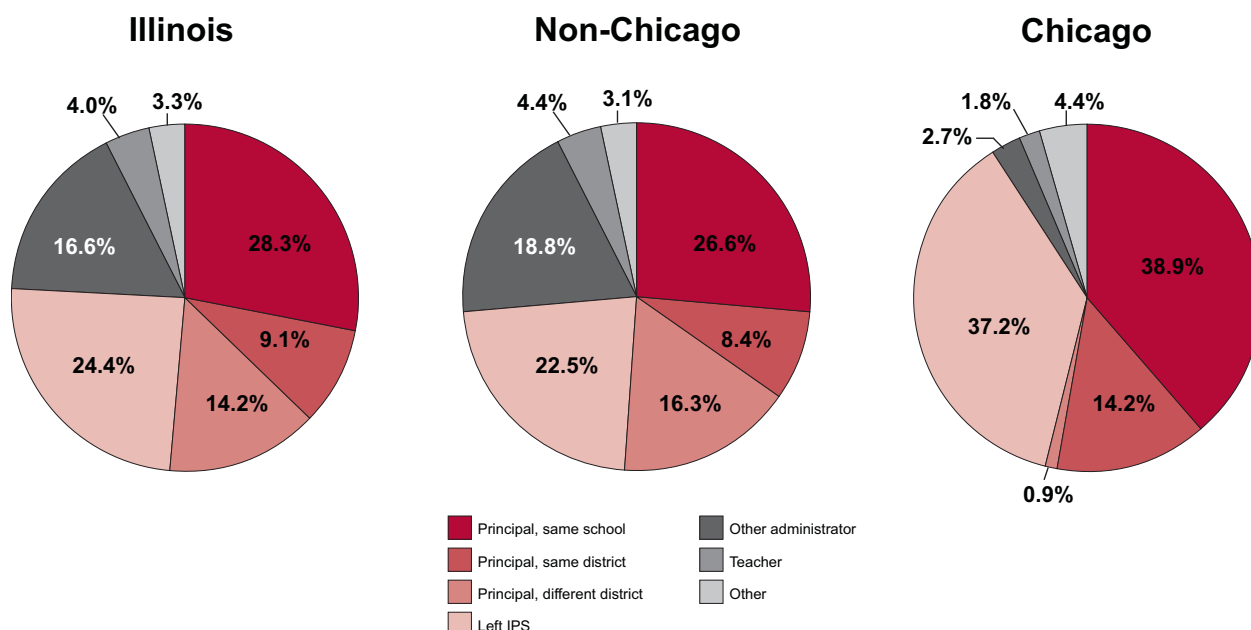
The greater instability of all principals in this study compared to Ringel et al.'s (2004) earlier study holds true for first-time principals as well. In Figure 2, we report the position held after six years by the 2001 and 2002 cohorts of new (i.e., first-time) principals in Illinois overall (left pie chart) and outside and within Chicago (center and right pie charts, respectively).³ As Figure 2 shows, just over 28% of first-time Illinois principals were still leading their original school after six years, compared to 38% in Ringel et al.'s study. About a quarter (24.4%) of first-time principals from the 2001 and 2002 cohorts had left IPS altogether, compared to 18% in the earlier study. Another 23% had changed schools, either within (9.1%) or outside of (14.2%) their original district, while the remaining 24% had changed to non-principal positions. About two-thirds of those who changed positions transitioned to some other type of administrative job within IPS. We find similar patterns for non-Chicago first-time principals after six years: 26.6% remained as principals in the same school, 8.4% moved to a principal position at another school in the same district, 16.3% moved to a principal position in another district, 22.5% left IPS altogether, 18.8% changed to a different administrative position, 4.4% changed to teaching positions, and 3.1% changed to other positions.

Figure 1: Annual principal turnover rates (2001 to 2007 cohorts)



³ For the purposes of comparison, these charts correspond with Figures 2.4 and A.9 in the Ringel et al. (2004) paper.

Figure 2: Position held after six years, 2001 and 2002 cohorts of first-time principals



Similar to Ringel et al.'s (2004) results, we find that first-time Chicago principals were more likely to have remained in the same school after six years (38.9%) than first-time Illinois principals overall (Figure 2). Once again, though, the retention rate for Chicago principals from these more recent cohorts was significantly lower than that for cohorts from the late 1980s and early 1990s (53%) (Ringel et al., 2004). Moreover, a much greater percentage of first-time Chicago principals had left the system altogether during their first six years (37.2%) than was found in the earlier cohorts (19%). Of the roughly 15% of first-time Chicago principals who had moved to a different school, the vast majority (14.2%) had moved within the Chicago public school district, which suggests that Chicago principals have either less desire or less opportunity than principals in other locales in the state to secure principal positions in other districts. Finally, a much smaller percentage of first-time Chicago principals (about 9%) compared to first-time Illinois principals overall (about 24%) had switched to non-principal positions in IPS after 6 years.

Turnover Rates by Personal and School Characteristics

As has been found in the teacher attrition and mobility literature (see, e.g., DeAngelis & Presley, 2007; Guarino, Santibanez, & Daley, 2006), studies show that turnover rates of principals vary based on their personal characteristics and the characteristics of the schools in which they work (Akiba & Reichardt, 2004; Baker, Punswick, & Belt, 2010; Branch et al., 2009; Clark et al., 2009; Clotfelter, Ladd, Vigdor, & Wheeler, 2006; Cullen & Mazzeo, 2007; Fuller & Young, 2009; Gates, Ringel, Santibanez, Guarino, Ghosh-Dastidar, & Brown, 2006; Loeb, Kalogrides, & Horng, 2010; Papa, 2007; Ringel et al., 2004; Wheeler, 2006). In this section, we present a simple look at average turnover rates across the 2001 to 2007 principal cohorts by the principals' personal characteristics and the characteristics of their schools (Tables 1 and 2, respectively). Multivariate analyses that control for differences in multiple characteristics of the principals and schools are presented later in this report.

Principals in rural schools were least likely to be retained in their schools, on account of relatively high rates of mobility across schools, particularly to schools in different districts, and to non-principal positions.

As shown in Table 1, female principals were somewhat more likely to remain in their school (80.6% vs. 77.6%) and less likely to leave IPS (7.7% vs. 9.2%) than male principals during the study period. The same was true for Latino principals compared to White and African American principals. African American principals showed the lowest stability of the three racial/ethnic groups.⁴ As expected, older principals (i.e., those 55 years and older) and more experienced principals (i.e., those with 4 or more years of experience) registered lower same-school retention and substantially higher leave rates than younger and less experienced principals, largely due

to significantly higher retirement rates (more on this below). Principals with two to three years of experience, both in a particular school and overall, were somewhat more likely to move to another school than first-year principals and more experienced principals. We also find some differences by degree level, with principals holding doctoral degrees and Certificates of Advanced Study (CAS) showing a greater propensity to change positions and leave altogether than other principals. Finally, the competitiveness of a principal's baccalaureate college, which we use as a rough indicator of his or her academic qualifications, made little difference in principals' movements during this period.

As was shown for first-time principals in Figure 2, principals in Chicago exhibited both slightly higher retention and leave rates than principals in other locale types and geographic regions in Illinois (Table 2). Their higher retention is due in part to their more limited movements across schools, especially to schools in other

Table 1. Average principal turnover rates, by principal characteristics

Principal Category	Principal Characteristics	Stayed in Same School	Moved Within District	Moved Out of District	Changed Position	Left IPS
	Overall	79.1%	2.8%	2.8%	6.8%	8.4%
Gender	Female	80.6%	2.8%	2.3%	6.6%	7.7%
	Male	77.6%	2.9%	3.2%	7.1%	9.2%
Race	African American	76.9%	3.5%	1.6%	7.9%	10.1%
	Latino	84.0%	1.9%	1.2%	6.1%	6.8%
	White	79.3%	2.8%	3.1%	6.6%	8.2%
Age	≤ 40 yrs old	80.9%	3.0%	5.4%	7.9%	2.8%
	41-54 yrs old	82.2%	3.1%	2.6%	7.0%	5.1%
	≥ 55 yrs old	69.3%	2.1%	0.9%	5.3%	22.5%
Experience as Principal (in any school)	1st year	85.1%	2.3%	2.9%	6.7%	3.0%
	Less experienced (2-3 years)	81.8%	3.4%	3.8%	6.9%	4.1%
	Experienced (4+ years)	77.3%	2.8%	2.4%	6.8%	10.7%
Experience as Principal (in current school)	1st year	83.5%	2.4%	2.9%	7.1%	4.2%
	Less experienced (2-3 years)	79.7%	3.4%	4.0%	7.4%	5.5%
	Experienced (4+ years)	77.2%	2.7%	2.1%	6.4%	11.6%
BA College Competitiveness	More Competitive	80.8%	2.3%	2.8%	6.8%	7.4%
	Less Competitive	79.5%	3.3%	2.5%	6.2%	8.6%
Highest Degree Level	Bachelor's	79.7%	3.8%	1.6%	8.8%	6.2%
	CAS/6-year certificate	75.6%	2.3%	2.1%	9.3%	10.7%
	Master's	79.5%	3.0%	2.9%	6.4%	8.2%
	Doctorate	76.4%	1.6%	2.3%	9.2%	10.5%

⁴ The numbers of Asian and Native American principals were too small to report in Table 1.

Table 2. Average principal turnover rates, by school characteristics

School Category	School Characteristics	Stayed in Same School	Moved Within District	Moved Out of District	Changed Position	Left IPS
Overall		79.1%	2.8%	2.8%	6.8%	8.4%
Locale	Chicago	81.7%	2.2%	0.2%	6.1%	9.8%
	Non-Chicago Urban	79.8%	3.4%	1.8%	6.5%	8.5%
	Suburban	79.5%	2.8%	3.0%	6.4%	8.3%
	Town	78.5%	2.8%	2.7%	7.4%	8.5%
	Rural	76.7%	3.2%	4.6%	7.9%	7.6%
Region	Chicago	81.7%	2.2%	0.2%	6.1%	9.8%
	Northeast (less Chicago)	79.9%	2.6%	3.2%	6.2%	8.1%
	Northwest	77.4%	3.1%	3.5%	7.2%	8.8%
	East Central	78.5%	3.1%	3.5%	7.1%	7.9%
	West Central	77.6%	3.2%	4.0%	7.4%	7.8%
	Southeast	77.1%	3.6%	2.4%	9.2%	7.7%
	Southwest	77.4%	3.7%	2.8%	7.4%	8.7%
School Level	Elementary/Middle	79.7%	3.1%	2.6%	6.3%	8.3%
	High School	76.6%	1.5%	3.7%	9.1%	9.1%
Minority Students Quartile	Low	77.6%	2.9%	4.0%	7.8%	7.7%
	Middle-Low	79.7%	2.6%	3.2%	6.6%	7.8%
	Middle-High	80.2%	2.6%	2.6%	6.2%	8.4%
	High	79.5%	3.2%	2.1%	6.2%	9.0%
	Highest 10%	77.7%	3.4%	0.6%	7.4%	10.9%
Low-income Students Quartile	Low	80.8%	2.0%	3.0%	6.6%	7.6%
	Middle-Low	78.8%	3.1%	3.6%	6.4%	8.2%
	Middle-High	78.7%	3.1%	3.0%	6.9%	8.3%
	High	76.9%	3.4%	2.3%	7.8%	9.6%
	Highest 10%	80.0%	3.0%	0.5%	6.7%	9.8%
Low Minority/Low Poverty		79.3%	1.8%	3.4%	7.4%	8.2%
High Minority/High Poverty		78.6%	3.3%	1.3%	7.0%	9.8%
AYP Status	Yes	79.1%	2.8%	3.1%	7.0%	8.1%
	No	75.3%	3.2%	2.2%	7.9%	11.4%
ISAT Quartile	Lowest	78.7%	3.3%	1.6%	6.6%	9.8%
	Middle-Low	78.9%	2.9%	3.4%	6.6%	8.2%
	Middle-High	79.6%	3.4%	3.1%	6.4%	7.6%
	Highest	81.5%	2.6%	2.5%	5.8%	7.6%
PSAE Quartile	Lowest	73.5%	3.0%	4.2%	9.5%	9.8%
	Middle-Low	76.1%	1.1%	4.5%	9.5%	8.8%
	Middle-High	77.9%	0.9%	3.3%	8.9%	9.0%
	Highest	80.3%	0.8%	3.2%	7.5%	8.2%

districts. Overall, an average of only 0.2% of principals in Chicago moved to principal positions in another district between 2001 and 2007, compared to 1.8% of principals in non-Chicago urban schools and 4.6% of principals in rural schools. Principals in rural schools, in fact, were least likely to be retained in their schools on account of relatively high rates of mobility across schools, particularly to schools in different districts, and to non-principal positions. Excluding Chicago, principal turnover rates by geographic region in Illinois were fairly similar during the period, with an average of just under 80% of principals remaining in the same school and about 8% of principals leaving the Illinois public schools from year-to-year.

Principals in low-achieving high schools were more likely to leave their schools than both their peers in the highest performing high schools and elementary/middle school principals at all achievement levels.

High school principals were somewhat less likely to stay in their schools (76.6% vs. 79.7%) and more likely to leave IPS (9.1% vs. 8.3%) or change positions (9.1% vs. 6.3%) than elementary/middle school principals. They also were about half as likely to change schools within district (1.5% vs. 3.1%). Principals in low-achieving high schools (i.e., the lowest PSAT quartile) were more likely to leave their schools (73.5% stay rate) than both their peers in the highest performing high schools (80.3% stay rate) and elementary/middle school principals at all achievement levels. The same was found among elementary/middle principals (i.e., higher stay rates in higher performing schools), although the differences in same-school retention were not as great by school performance (ISAT) quartile at this level as they were at the high school level. A school's AYP status also was found to be associated with its principal's movement. Principals whose schools did not make AYP were less likely to remain in that school (75.3% vs. 79.1%) and

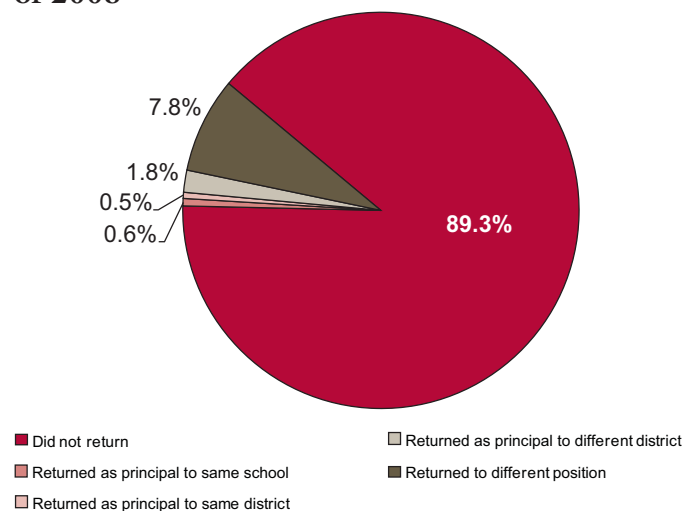
less likely to remain in IPS altogether (11.4% vs. 8.1%) than principals whose schools made AYP.

With regard to student characteristics, we find greater and more systematic variation in principals' exit rates from IPS than in same-school retention rates, with principals in higher minority schools and lower income schools leaving IPS at higher rates than principals in lower minority and higher income schools (Table 2). For example, 10.9% of Illinois principals serving in the highest (top 10%) minority schools left IPS compared to 7.7% of principals serving in the lowest minority schools. Variation in the percentages of principals who stayed in the same school was less consistent across the minority and low-income categories.

A Closer Look at Leavers

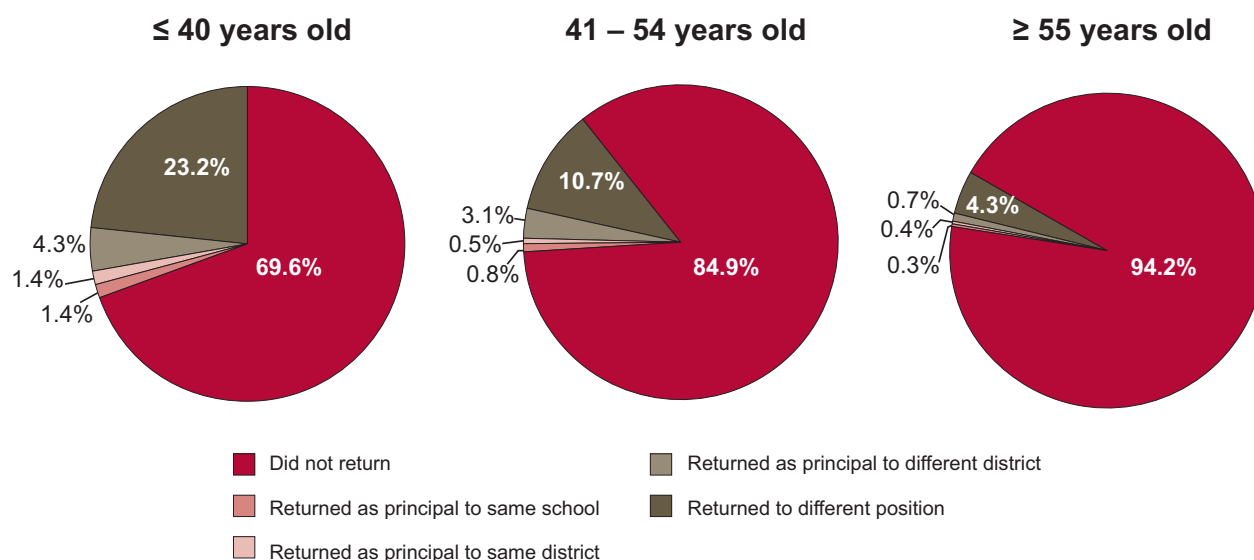
As noted earlier, the year-to-year attrition rate from IPS averaged 8.4% of all principals (just over 300 principals per year) during the study period. Of that 8.4%, roughly 9 out of 10 (89.3%) had not returned to IPS by 2008 (Figure 3). The remaining 10.7% of leavers had returned after at least a one year absence, the majority (7.8% of all leavers, 72.9% of returners) to non-principal positions in IPS. Those who came back to principal positions were more likely to return to a different district (1.8% of all leavers) than to their former district (0.5% of all leavers) or former school (0.6% of all leavers).

Figure 3. Return rates for 2001-2006 leavers as of 2008



Roughly 9 out of 10 leavers had not returned to Illinois Public Schools by 2008.

Figure 4. Return rates for 2001-2006 leavers as of 2008, by principal age



Not surprisingly, the return rates differed substantially by the age of the principal when he or she left (Figure 4). Younger principals who left IPS were more likely to return (30.4% of those aged 40 or younger) by the end of the study period than older principals (15.1% and 5.8% of those aged 41-54 and 55 or older, respectively). Across all age groups, the majority of those who came back returned to non-principal positions. Only a very small percentage of returners in each age category assumed principal positions in their former district or school.

We also find some differences in return rates by school characteristics (Table 3). For example, young principals (those aged 40 or younger) from Chicago, town, and rural schools were more likely to return to IPS than similarly aged principals from non-Chicago urban and suburban schools. In fact, a much greater percentage of those principals returned to principal positions either in their former school (Chicago) or in a different district (town and rural). Older rural principals also were more

likely to return than older principals in other locales. Similarly, young principals in the East Central and West Central regions of the state were more likely to return than their counterparts in other regions, whereas the return rates were more similar across regions among the older principal groups.

Considering differences by school level, young high school principals were more likely to return to IPS than young elementary/middle school principals, mainly due to their high rate of return to principal positions in different districts. The return rates for the older principal groups were similar by school level. Somewhat surprisingly, the return rates tended to be higher for younger principals (both those aged 40 and younger and those aged 41-54) who served in the highest poverty and lowest performing schools (both in terms of achievement quartile and AYP status) than similarly aged principals in the highest income and highest performing schools.

Table 3. Return rates of principals who left IPS, by age category and school characteristics (2001 to 2006 cohorts)

	≤ 40 years old					41 – 54 years old					≥ 55 years old				
	Returned as Principal to:			Returned to Different Position	Did not Return	Returned as Principal to:			Returned to Different Position	Did not Return	Returned as Principal to:			Returned to Different Position	Did not Return
	Same School	Same District	Different District			Same School	Same District	Different District			Same School	Same District	Different District		
Locale Type															
Chicago	62.5	12.5	0.0	0.0	25.0	88.9	1.8	0.0	0.0	97.2	0.6	0.6	0.3	1.3	
Non-Chicago Urban	72.7	0.0	0.0	0.0	27.3	90.0	0.0	0.0	1.0	94.6	0.9	0.0	0.9	3.6	
Suburban	74.3	1.3	2.7	1.4	20.3	85.5	0.9	1.2	3.0	95.3	0.0	0.4	0.8	3.5	
Town	62.5	0.0	0.0	12.5	25.0	89.2	0.0	0.0	2.4	88.3	0.0	1.0	1.0	9.7	
Rural	62.2	0.0	0.0	10.8	27.0	77.5	1.1	0.0	5.6	90.1	0.4	0.0	0.9	8.6	
Region															
Northeast (w/ out Chicago)	73.0	1.6	1.6	0.0	23.8	84.6	1.0	1.3	2.3	96.5	0.0	0.5	0.5	2.6	
Northwest	81.8	0.0	0.0	4.6	13.6	82.7	0.0	0.0	1.0	87.8	0.8	0.0	2.3	9.2	
East Central	54.5	0.0	0.0	9.1	36.4	85.9	0.0	0.0	4.7	92.8	1.0	0.0	1.0	5.2	
West Central	64.3	0.0	7.1	7.1	21.4	85.9	1.3	0.0	6.4	91.3	0.0	0.0	0.0	8.7	
Southeast	–	–	–	–	–	84.0	2.0	0.0	2.0	83.3	0.0	1.8	1.9	13.0	
Southwest	78.6	0.0	0.0	14.3	7.1	84.2	0.0	0.0	6.6	93.7	0.0	0.0	0.9	5.4	
Elementary/ Middle	72.3	1.8	1.8	1.8	22.3	84.5	0.8	0.5	3.5	94.6	0.3	0.4	0.8	3.9	
School Level															
High	57.7	0.0	0.0	15.4	26.9	86.1	0.7	0.7	1.4	92.5	0.4	0.4	0.4	6.2	
Minority															
Lowest Quartile	71.0	0.0	1.0	5.0	23.0	85.2	0.7	0.2	3.2	93.0	0.1	0.3	0.8	5.8	
Highest Quartile	–	–	–	–	–	82.6	0.0	0.0	8.7	97.6	0.0	0.0	1.2	1.2	
Income															
Lowest Quartile	73.3	0.0	0.0	0.0	26.7	88.4	1.2	0.6	1.7	92.4	0.0	0.5	1.5	5.6	
Highest Quartile	61.1	5.6	2.8	2.8	27.8	85.4	0.5	1.5	4.4	94.8	0.6	0.6	0.8	3.2	
Achievement Level															
Lowest Quartile	69.7	6.1	0.0	3.0	21.2	82.8	0.7	1.4	3.4	97.5	0.8	0.3	0.0	1.4	
Highest Quartile	74.2	0.0	0.0	3.2	22.6	90.5	0.6	0.0	1.9	94.2	0.0	0.9	0.9	4.0	
AYP Status ^a															
Yes	80.9	0.0	1.5	4.4	13.2	90.2	0.3	0.0	2.1	94.5	0.3	0.3	0.7	4.2	
No	78.6	3.6	0.0	0.0	17.9	83.5	0.7	0.7	2.9	96.9	0.5	0.6	0.0	2.0	

^a AYP information is available beginning in 2003 so the 2001 and 2002 cohorts of principals are excluded from those figures.

Reason for Leaving

Fortunately, we have some, albeit limited, information regarding the reason for leaving the Illinois public schools for principals from the 2003 to 2007 cohorts. The information, which was provided with the TSR data, represents 95.1% of all principals who left the system during those four years. Those who left following the 2001 and 2002 academic years are not included in this analysis due to a lack of information for those cohorts. As Table 4 shows, about two-thirds (65.6%) of leavers overall cited retirement as the reason for leaving. As expected, there was substantial variation between young principals (i.e., those aged 40 or younger at the time of departure) and older principals (i.e., those 41-54 years old and 55 and older) on this response. Specifically, only 1.1% of those aged 40 or younger cited retirement as the reason for leaving compared to 64.6% and 72.9% of those in the 41-54 and 55 and older age categories, respectively. In contrast, young principals were substantially more likely than older principals to cite a move to an education position in a non-public or out-of-state school, domestic/child care responsibilities, or involuntary removal from their position as the reason for leaving. Although, due to differences in sample sizes across the age categories, a greater number of principals aged 41-54 were actually

About two-thirds of leavers overall cited retirement as the reason for leaving, and only a small percentage of principals across all age categories left IPS to pursue work in some non-educational vocation.

removed from their positions than principals aged 40 or younger. With the increase in accountability at the school level during the period of this study, we suspect that some portion of principals aged 55 and older may have opted or been encouraged to retire rather than be removed from their positions, especially since about one-quarter of those principals left schools that had failed to meet NCLB's AYP requirements.⁵ Our data also indicate that only a small percentage of principals across all age categories left IPS to pursue work in some non-educational vocation. This corresponds with Gates, Ringel, Santibanez, Ross, and Chung's (2003) study using national data, in which they found little evidence to support the notion that school administrators often leave for more lucrative opportunities in other sectors. Further research is needed to determine the actual reason why principals included in the 'Other' category left their schools.

Table 4. Principals' reasons for leaving (2003-2007)

	Overall	≤ 40 years old	41-54 years old	≥ 55 years old
Retirement	65.6%	1.1%	64.6%	72.9%
Other	23.6%	34.9%	20.4%	24.2%
Education position in non-public or out-of-state school	3.5%	24.5%	4.2%	1.0%
Involuntary departure ^a	2.3%	12.8%	3.2%	0.7%
Domestic/child care responsibilities	1.4%	12.8%	1.5%	0.2%
Health issue or death	1.4%	1.1%	2.6%	0.8%
Non-education vocation	1.2%	4.3%	2.3%	0.2%
Military service/Other leave of absence	0.5%	3.2%	0.8%	0.0%
Sabbatical/Return to school	0.5%	5.3%	0.4%	0.0%
N	1,536	94	528	914

^a Includes reduction in force and forced resignation by the board.

⁵ Twenty-nine percent of the principals who were identified as having been removed from their positions left schools that had failed to meet AYP requirements. Among principals from the 2003 to 2007 cohorts who changed schools during the period, only 0.7% were identified as having been removed involuntarily from their schools. Thus, only very small percentages of principals who moved across schools or left IPS altogether were explicitly identified as having been removed from their schools during this period.

Illinois principals who changed schools within their district experienced little change, on average, in the characteristics of the students and teachers in those schools.

A Closer Look at Movers

Studies of urban principals in the New York City and Miami-Dade County school districts found that principals who change schools tend to move to more advantaged schools (i.e., schools with lower percentages of low-income, minority students, and/or low-performing students) (Clark et al., 2009; Loeb et al., 2010). In this section, we compare for Illinois principals who changed schools the characteristics of their initial school (i.e., the school the principal left) and their receiving school (i.e., the school to which the principal moved). We distinguish within district moves from out-of-district moves and examine differences overall and by locale type. Paired sample t-tests were conducted to determine whether the differences in characteristics between principals' initial and receiving schools are statistically significant.

As shown in Table 5, the results for Illinois principals, including principals in Chicago, largely depend on whether the principals moved within or outside of their original district. This is consistent with Papa, Lankford, and Wyckoff's (2002) results for principals in New York State. Illinois principals who changed schools within district experienced little change, on average, in the characteristics of the students and teachers in those schools. Only in non-Chicago urban districts did principals move to schools with a substantially lower percentage of low-income students. Suburban and rural principals who moved within district actually experienced a small increase in the percentage of minority students in their schools, as did Chicago and suburban principals in terms of the average percentage of inexperienced teachers (i.e., those with no more than three years of experience) in their schools.

Principals who transitioned across district lines, in contrast, tended to move to schools with significantly lower percentages of low-income students and higher average achievement levels (Table 5). For example, non-Chicago urban principals who changed districts moved from schools with an average of 40% low-income students

Table 5. Characteristics of initial and receiving schools for principals who moved schools, by within and out-of-district moves

		% Minority Students		% Low-Income Students		Mean Achievement (standardized score)		Mean Teacher ACT Score		% Inexperienced Teachers	
		Initial	Receiving	Initial	Receiving	Initial	Receiving	Initial	Receiving	Initial	Receiving
Within District	Overall	38.4	39.5*	43.4	42.2†	-0.10	-0.13	20.9	21.0	17.2	18.4*
	Chicago	95.1	93.8	87.0	84.4	-1.53	-1.47	19.7	19.8	19.6	22.5†
	Non-Chicago Urban	52.3	52.4	54.7	47.3**	-0.32	-0.35	21.2	21.2	17.3	17.4
	Suburban	43.5	45.6**	37.9	38.3	0.02	-0.04	20.8	21.0	18.8	21.3**
	Town	13.2	12.0	42.6	38.8	0.20	0.26	21.2	21.1	12.2	10.4
	Rural	5.4	7.1**	26.7	27.5	0.40	0.34	21.2	21.3	15.0	15.0
Out of District	Overall	24.8	24.9	29.5	27.8†	0.16	0.29***	21.4	21.5*	18.6	17.7
	Chicago	92.7	66.7	87.5	42.9**	-1.42	-0.47†	19.8	21.1	23.8	23.7
	Non-Chicago Urban	48.5	33.9**	40.0	29.8*	-0.02	0.28†	21.6	21.6	19.2	16.8
	Suburban	37.8	34.7†	28.0	24.9*	0.21	0.37**	21.3	21.6***	20.1	19.1
	Town	10.8	14.3	36.2	30.0†	0.12	0.23	21.4	21.5	11.8	13.9
	Rural	6.1	12.8***	26.5	30.1**	0.18	0.22	21.6	21.5	18.2	16.8

† p ≤ .10 * p ≤ .05 ** p ≤ .01 *** p ≤ .001

to schools with an average of just under 30% low-income students. In addition, non-Chicago urban and suburban teachers moved to less racially/ethnically diverse schools. Principals of rural schools were the exception in that they moved to schools in other districts with higher percentages of minority and low-income students.

A Closer Look at Principals who Changed Positions

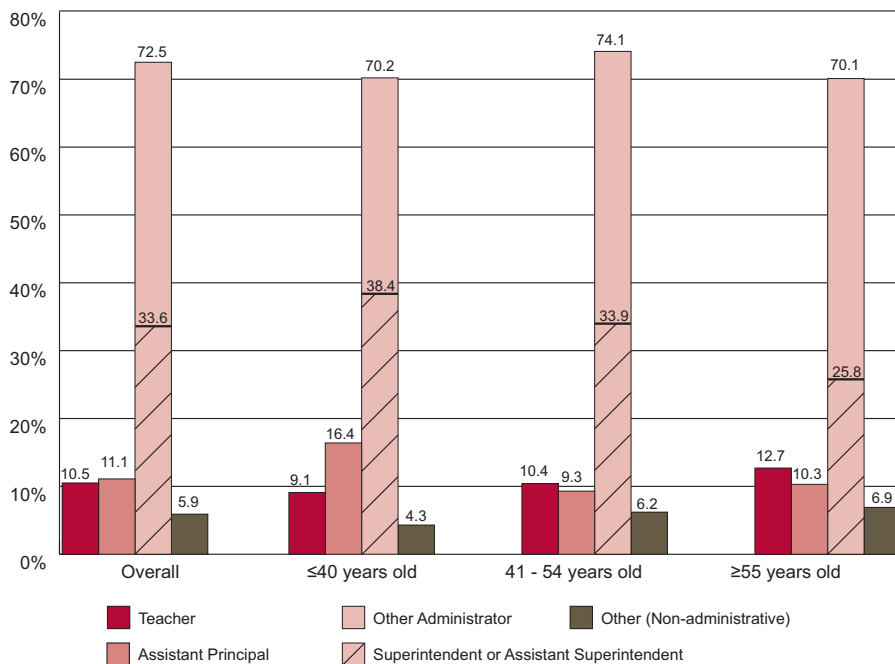
An average of 6.8% of principals per year changed to non-principal positions within IPS during our study period (see Figure 1). As shown in Figure 5, the majority of changers (72.5%) moved to other administrative positions. These include a number of school- and district-based jobs, such as dean, director, program supervisor, regional and district superintendent, and business manager positions. Interestingly, about one-third of principals in the youngest two age categories transitioned to superintendent or assistant superintendent positions, whereas just over a quarter of those in the oldest age category did so. Just over 11% of changers overall moved to assistant principal positions, with young principals (i.e., those aged 40 or younger) much more likely to make

Principals who transitioned across district lines tended to move to schools with significantly lower percentages of low-income students and higher average achievement levels.

that transition than older principals. Although not shown in the figure, roughly half (51%) of the principals who transitioned from their principal position to an assistant principal position had served in that capacity for one or more years prior to becoming a principal, which suggests that some who are promoted from the assistant principal rank may not be or perceive themselves to be adequately prepared for the role of principal. Another 16.4% of principals overall reverted back to teaching (10.5%) or to other, non-administrative positions (5.9%) within IPS. Surprisingly, principals in the oldest age category were somewhat more likely than younger principals to transition to non-administrative work (12.7% to teacher and 6.9% to other) and less likely to transition to superintendent or assistant superintendent positions (25.8% compared to 33.6% overall).⁶

There is some evidence that access to higher-level administrative positions varies by school level, with the high school principalship viewed as providing better preparation than the elementary school principalship for district-level administration (Ortiz, 1982; Tallerico, 2000). Given the differences in transition rates to non-principal positions by school level that we found (as shown in Table 2), we also examine the new positions held by principals who changed positions based on the school level of their principalship. As Figure 6 reveals, high school principals in Illinois were more likely to transition

Figure 5. New position of principals who changed positions, by age



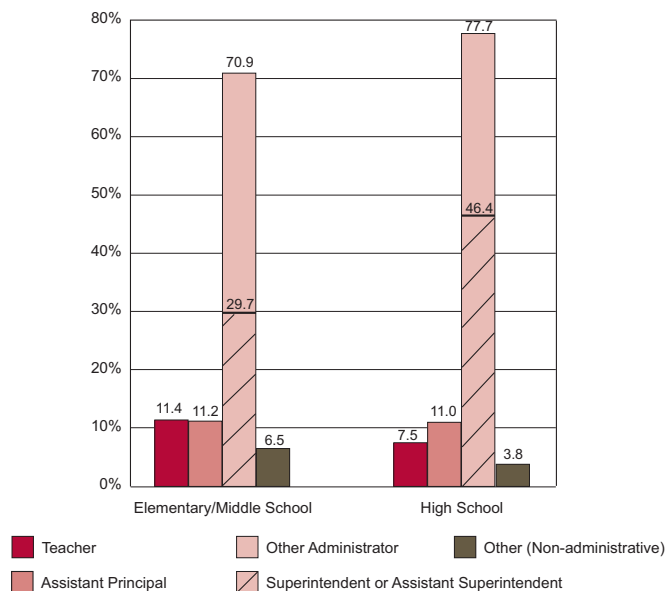
⁶ The following positions are included in the “superintendent or assistant superintendent” category: regional superintendent, assistant regional superintendent, district superintendent, assistant district superintendent, deputy superintendent, and associate superintendent.

The majority of changers moved to other administrative positions.

to other administrative positions (77.7% vs. 70.9%) and less likely to transition back to teaching positions (7.5% vs. 11.4%) than elementary/middle school principals. Moreover, high school principals were much more likely than their elementary/middle school counterparts to move to superintendent or assistant superintendent positions (46.4% vs. 29.7%). Although similar percentages of principals at both levels transitioned to assistant principal positions (about 11%), nearly two-thirds (63.6%) of high school principals had one or more years of experience as an assistant principal before becoming a principal, compared to less than half (47.6%) of elementary/middle school principals. Additional research is needed to determine why some principals revert to lower ranked positions after having been promoted to a principalship.

High school principals were more likely to transition to other administrative positions and less likely to transition back to teaching positions than elementary/middle school principals.

Figure 6. New position of principals who changed positions, by school level



Multivariate Analysis of Principal Turnover

The retention and turnover rates presented in Tables 1 and 2 reflect the total effect of each personal and school characteristic on principals' movements. While those numbers are important for showing actual differences in retention and turnover rates for each principal and school type in Illinois, principals and the schools in which they work differ across multiple dimensions. For example, female principals differ by race/ethnicity, age, years of experience, etc., all of which also may affect their movements. Moreover, as Brown and White (2010) demonstrated, the characteristics of Illinois principals differ across schools. For example, they found that principals in Chicago schools were more likely to be female, minority, and older than principals in schools in other locales during this timeframe. Thus, the total effects by school type reported in Table 2 are due in part to differences in the characteristics of principals across schools. To determine the unique influence of the various personal and school-based characteristics on principal retention and turnover, multivariate models that control for other differences across principals and schools must be used.

In this section, we present the results of a multivariate analysis that uses a discrete-time competing risks framework implemented using a multinomial logit model with five possible outcomes: stayed in the same school, remained a principal but moved to a new school within district, remained a principal but moved to a new school out of the district, changed to a non-principal position, or left the Illinois public schools altogether. The first outcome (stayed in the same school) is used as the baseline category, which means the relative risk ratios presented in Table 6 reflect the impact of a unit change in each independent variable on the odds of making each particular transition relative to staying in the same school, controlling for all other characteristics included in the model. Principals who retire are included in the "Left IPS" group in these analyses because we view retirement as a choice. The retirement findings do not affect the outcomes for the "movers" and "changers" groups, since these outcomes are mutually exclusive. A

relative risk ratio that is significantly greater than one reflects greater odds of making that transition, whereas a ratio significantly less than one reflects lower odds. Like Gates et al. (2006), we cluster the standard errors at the school level to account for potential correlation between observations within each school. The results in Table 6 are restricted to principal cohorts from 2003 to 2007 due to the lack of AYP information prior to that time.

As shown in Table 6, female principals during our study period had significantly lower odds of moving within district or leaving IPS altogether than male principals, all else equal. Their odds of moving out of district or changing positions, however, were similar to male principals. These results differ from Ringel et al.'s (2004) earlier results for Illinois, in which they found females to be more likely than males to leave and to change positions.

While Latino principals registered significantly lower odds of moving within district than White principals, they exhibited significantly greater odds of moving across districts. All else equal, African American principals were more likely to change positions than White principals, although that difference was only marginally significant ($p \leq .10$). Like Ringel et al. (2004), we found race/ethnicity to have no significant impact on leaving IPS altogether.⁷

To capture possible non-linearity in the effect of age on principal turnover, we include age as both a continuous variable and as its square in the model. The results indicate that for every additional year of age, the odds of a principal moving within district increased by 19%. The significant squared term, though, indicates that the relationship diminishes as age increases. These results are consistent with evidence from teacher retention research (Guarino et al., 2006), which shows greater rates of turnover among younger teachers, but lower rates among older ones on account of job- and occupation-

Female principals during our study period had significantly lower odds of moving within district or leaving IPS altogether than male principals, all else equal.

specific human capital accumulation and life-cycle career patterns. Controlling for years of principal experience, age was not significantly related to the other transition decisions.

Degree level exerted only a minor impact on principals' transitions, with principals holding doctorate degrees being less likely to move within district than those with Bachelor's degrees. We found no significant effect of degree level on the other three outcomes. And consistent with Ringel et al. (2004), we found no effect at all of BA college competitiveness on principals' movements, all else equal.

Principals in their early years in the position exhibited significantly greater odds of moving within district and across districts, as well as changing positions, than first year principals.

For years of experience as a principal, we include dummy variables for each year up to 20 or more years, with the first year serving as the reference category.⁸ As shown in Table 6, principals in their early years in the position exhibited significantly greater odds of moving within district and across districts, as well as changing positions, than first year principals. This greater propensity to move schools and positions, though, became statistically insignificant by seven to 13 years on the job, depending on the outcome. In contrast, the likelihood of leaving altogether was significantly higher for principals with

⁷ Ringel et al. (2004) also included in their models a dummy variable to capture whether the principal's race/ethnicity was the same as that of the plurality of students in the school. They found that principals with the same race were less likely to move to principal positions in other schools and to leave the system. We constructed a similar variable but found it to have no effect in our models, so we excluded it altogether.

⁸ Using years of experience as a principal in a particular school rather than years of experience as a principal in any school showed qualitatively similar results. We do not include both types of principal experience due to the relatively high correlation between those variables ($r=0.72$).

Table 6. Multinomial logit model of principal turnover, 2003-2007 cohorts (stayed in the same school is the reference outcome)

Principal Characteristics		Moved Within District	Moved Out of District	Changed Positions	Left IPS
Gender (Male is reference)	Female	0.73**	0.95	0.97	0.83**
Race/Ethnicity (White is reference)	African American	1.27	1.26	1.24 [†]	1.16
	Latino	0.41*	1.47*	1.06	0.94
Age		1.19*	1.01	1.02	1.02
Age ²		0.99*	1.00	1.00	1.00
Degree Level (BA is reference)	CAS	0.53	1.47	1.04	1.15
	Master's	0.68	1.63	0.76	1.23
	Doctoral	0.49*	1.88	1.19	1.29
BA competitiveness ranking (Competitive/very competitive is reference)	Highly/most competitive	0.92	1.04	1.04	0.93
	Less/non competitive	1.09	1.02	0.88	0.94
Years of principal experience (1 st year is reference)	2 years	1.76**	1.56*	0.94	1.16
	3 years	1.53 [†]	2.03***	1.45**	1.36
	4 years	1.88**	2.58***	1.36*	1.58*
	5 years	1.93**	1.82**	1.50**	1.67**
	6 years	1.92**	2.64***	1.46*	1.52*
	7 years	2.41***	1.86*	1.81***	2.27***
	8 years	1.45	2.36**	1.52*	2.60***
	9 years	1.32	1.40	1.72***	2.24***
	10 years	1.62 [†]	2.21**	1.38 [†]	2.29***
	11 years	1.11	2.33**	1.24	1.92***
	12 years	1.17	1.53	1.44 [†]	2.36***
	13 years	2.08**	1.55	1.49 [†]	3.72***
	14 years	0.74	0.70	1.41	2.97***
	15 years	1.24	1.46	1.10	1.85**
	16 years	1.36	1.02	1.01	3.48***
	17 years	1.49	1.54	1.09	3.65***
	18 years	1.41	0.45	1.53	3.45***
	19 years	2.23 [†]	0.53	0.78	3.08***
	20 years	0.60	0.43	0.56 [†]	3.82***
School Characteristics		Moved Within District	Moved Out of District	Changed Positions	Left IPS
Locale (Suburban is reference)	Chicago	0.59*	0.02***	0.79	0.54***
	Non-Chicago Urban	1.07	0.71 [†]	1.06	0.97
	Town	0.92	0.97	1.23	1.02
	Rural	1.24	1.26 [†]	1.24*	1.05
School Level (Elementary/Middle is reference)	High School	0.55***	1.35*	1.34**	1.02
School Size (in 100s)		0.92***	0.96*	1.00	1.00
% Minority Students		1.00	1.00	1.00	1.00
% Low Income Students		1.01*	0.99	1.00	0.99*
Mean standardized achievement score		0.98	0.72**	0.81**	0.81***
AYP status (1=yes, 0=no)		0.75*	0.95	1.02	0.82*
Mean Teacher ACT composite score in school		1.01	1.06	0.99	1.00
% of Teachers in School with 3 or fewer years of experience		0.77	1.89	1.26	0.88
% Non-highly Qualified Teachers in School		1.01	1.02***	1.00	1.02***

Note: Relative risk ratios are reported. All models include year dummies to control for possible changes in policy and/or practice during the study period that could have affected these outcomes, such as changes in retirement incentives.

[†] p ≤ .10 * p ≤ .05 ** p ≤ .01 *** p ≤ .001

four or more years of experience compared to new principals, and tended to increase with increasing experience levels.

Controlling for principals' personal characteristics, as well as other characteristics of the schools, principals in Chicago schools had significantly lower odds of changing schools, particularly across district boundaries, and of leaving IPS than principals in suburban schools. Non-Chicago urban principals in Illinois also were less likely to move to schools in other districts compared to suburban principals, although that difference was only marginally significant. In contrast, rural school principals were marginally more likely to move to principal positions in other districts and significantly more likely to change to non-principal positions than their suburban counterparts.

High schools principals were less likely to move schools within district than elementary/middle school principals, although they were significantly more likely to move to principal positions across district lines and to change to non-principal positions. The attrition rate of principals from IPS, though, did not differ by school level. Controlling for school level and locale (as well as all other included characteristics of principals and schools), we found an inverse relationship between the odds of moving to principal positions in different schools both within and out of district and school size. That is, for an increase in enrollment of 100 students, the odds of a principal moving to a new school declined (0.92 risk ratio within district, 0.96 out of district). School size showed no effect on changing to non-principal positions or leaving altogether.

We find that the characteristics of students in Illinois schools appear to have only a small impact on principal turnover, all else equal. While the percentage of low-income students in a school increases the odds of moving within district, student poverty has the exact opposite effect on leaving IPS. Our results show no independent effect of the percentage of minority students in the school on principals' transitions, controlling for

Controlling for principals' personal characteristics, as well as other characteristics of the schools, principals in Chicago schools had significantly lower odds of changing schools and of leaving IPS than principals in suburban schools.

other characteristics of the school. In contrast, student performance as measured by standardized achievement scores in the school and the school's AYP status exhibited independent effects on principal turnover. More specifically, principals in schools that made AYP had significantly lower odds (0.75) of moving to schools within their district or leaving (0.82) the Illinois public schools than principals in schools that failed to make AYP, controlling for the overall achievement level of the school. Similarly, controlling for AYP status, principals in schools with higher overall achievement scores were significantly less likely to move across district, change to non-principal positions, and leave altogether than principals in lower performing schools. Because Ringel et al. (2004) did not include achievement variables in their models, it is not possible to determine whether the impact of school performance on principal turnover has increased with the greater emphasis on accountability in recent years. Nonetheless, our results demonstrate that school performance has a significant impact on principal stability in Illinois.

In addition to imposing school-level accountability for performance, the No Child Left Behind Act of 2001 (NCLB) mandated a basic level of qualifications for teachers of core subjects in all schools (U.S. Department of Education, 2002). Given the unequal distribution of teacher qualifications across schools in Illinois

The characteristics of students in Illinois schools appear to have only a small impact on principal turnover, all else equal.

Accountability pressures, both in terms of student achievement and teacher qualifications, appear to have had a negative impact on principal stability.

(DeAngelis, Presley, & White, 2005; Presley, White, & Gong, 2005), we also sought to determine whether the qualifications of teachers in schools had an impact on principals' career decisions. As shown in Table 6, principals of schools with higher percentages of non-highly qualified teachers, as defined by NCLB, had significantly greater odds of moving to new schools out

of district and leaving IPS altogether than principals of schools with lower percentages of non-highly qualified teachers. Our results indicate that the odds of making those transitions increase by about 2% for every 1% increase in unqualified teachers in the school. Other indicators of teachers' qualifications, including the mean ACT composite score of teachers and the percentages of teachers in the schools with no more than three years of experience had no effect on principal turnover during this study period. Thus, accountability pressures, both in terms of student achievement and teacher qualifications, appear to have had a negative impact on principal stability in Illinois between 2001 and 2008.

Summary and Implications

Compared to the 1987 to 2001 period, principal stability in Illinois has declined in recent years both within schools and within the IPS system altogether. That is, we find that a smaller percentage of principals remained in their schools from year to year and a greater percentage left IPS each year between 2001 and 2008 than was found in Ringel et al.'s (2004) earlier study. Accountability pressures, both with regard to student achievement and teacher qualifications, appear to have contributed to this greater instability as we show that student achievement scores, a school's AYP status, and the percentage of non-highly qualified teachers in a school all affected principal turnover during this time. Student characteristics, in contrast, had little impact on principal turnover, controlling for other factors. The implications of these results on Illinois depends on whether one focuses on the system level or the school level. At the system level, higher principal attrition and the fact that only a small fraction of leavers return indicate an increased loss of principal resources from the state in recent years. Thus, district administrators have been facing increased pressure to recruit new principals. At the school level, while the literature suggests that principal turnover can have a detrimental effect on student achievement (Branch, Hanushek, & Rivkin, 2009; Wheeler, 2006), presumably so too can an ineffective principal who remains in a school for a long time. Without information regarding the effectiveness of principals, we are not able in this study to assess whether the increase in principal instability at the school level in recent years presents cause for concern.

Although principals in Chicago schools exhibited greater same-school retention than principals in other locales during this period, they also registered higher attrition rates from IPS. These differences in retention and attrition rates were due in large part to differences in the characteristics of principals and schools in Chicago compared to other areas. For example, Brown and White (2010) showed that Chicago principals were on average substantially closer to retirement age and had more total years of experience in Illinois schools than principals elsewhere from 2001 to 2008, which helps to explain their higher attrition rates. Indeed, Forte (2010) and Harris (2010) describe "waves" of principal retirements in Chicago during the past several years due to the district's aging principal corps and its pension incentive program. Brown and White (2010) also found that females, who registered higher average retention rates during the period, constituted a much greater share of principals in Chicago schools than in schools in other areas. Once differences in these and other characteristics were controlled in our multivariate analysis, Chicago principals were actually less likely to leave IPS than suburban school principals in the state. Somewhat surprisingly, Chicago principals also exhibited lower mobility rates across schools both within and especially across districts, than principals in other locales, even after controlling for other differences. These findings contradict perceptions that Chicago schools suffer from less stable leadership than schools in other parts of the state (Harris, 2010; Oberman, 1996). However, we surmise that the higher

attrition rates of Chicago principals and the resulting need to replace those who leave with new talent have contributed to those perceptions.

Other studies have found that principals who change schools tend to move to more advantaged schools (Clark et al., 2009; Loeb et al., 2010). In contrast, we show that the results for Illinois principals, including principals in Chicago, largely depend on whether the principal moved to a new school within or outside of his or her original district. Illinois principals who changed schools within district experienced little change, on average, in the characteristics of the students and teachers in those schools. Only in non-Chicago urban districts did principals move to schools with a significantly lower percentage of low-income students. Illinois principals who transitioned across district lines, in contrast, tended to move to schools with significantly lower percentages of low-income students and higher average achievement levels. Loeb et al. (2010) found that principals' preferences with regard to school characteristics were significantly associated with their movements to more advantaged schools. To the extent that Illinois principals' preferences are similar to those of principals in the Loeb et al. (2010) study, our results suggest that intra-district principal mobility in Illinois may be determined more by districts' needs and decisions with regard to principal placement than by principals' own preferences.⁹ In fact, respondents in Stoelinga, Hart, and Schalliol's (2008) study of Chicago principals noted the greater role of the central office in assigning and moving principals in recent years. The shuffling of principals within districts has no impact on a district's overall demand for school leaders, but it does have an impact on principal tenure

within schools. As noted earlier, the impact of principal reassignment decisions likely depends on the effectiveness of principals who are moved. District administrators need to consider both the potential costs and benefits of moving principals across schools.

Finally, aside from changing policies to create an incentive for principals to stay in the profession longer, it is not clear that much can be done to retain older principals who choose to retire. The same could be said for principals who leave their schools to pursue other administrative posts in IPS and thereby contribute in other administrative capacities to Illinois schools and districts. However, we found that the vast majority of younger principals leave for reasons other than retirement. Moreover, the minority of those who eventually return to IPS tend to do so to non-principal positions. Given the increasing reliance on younger principals in Illinois over the past several years (Brown & White, 2010), efforts are needed to better understand the reasons for this premature turnover of principals. Similarly, nearly three out of ten principals who changed positions between 2001 and 2008 moved to an assistant principal, teaching, or some other, non-administrative position. The transition from a principalship to a lower-rank position suggests that some individuals who become principals in Illinois may not be or perceive themselves to be adequately prepared for the role. Further research is needed to determine why those transitions are occurring and what might be done in the preparation, selection, and/or induction process to mitigate that turnover.

⁹ More information about Illinois principals' preferences, which the IERC has gathered from a fall 2010 population survey of principals in the state, will be provided in a subsequent report in this series.

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